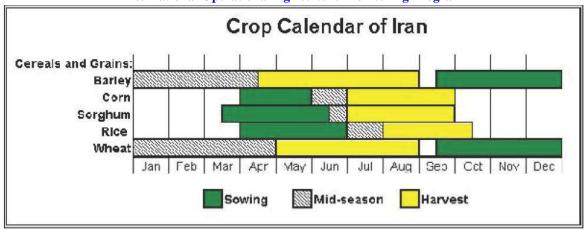
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December Summary December 22, 2008

- (1) Multiple rainfall events occurring at the end of September through October provided higher than normal precipitation and favorable condition for winter grains planting in central and western Iran. A subsequent drop in precipitation during the second half of the planting season has left much of the agricultural northwest and central Iran with below normal rainfall, presenting an issue for any who waited for later in the season to sow their crops(Figure 2)
- (2) Planting conditions for the MY 2009/10 winter grain crop have been better than the previous year's drought conditions in the northwest region where over 50% of Iran's grain production occurs. Conditions in the central and eastern regions remain similar to the previous year, however agricultural areas in the east are predominantly irrigated and should be minimally affected assuming planting seed and irrigation supplies remain normal(Figure 3).
- (3) The current 7dayforecast for Iran shows significant rain events in the northwest-most provinces which should hopefully supply rain to the lower elevations and agricultural fields, and much needed snow pack at the higher elevations (Figure 4).
- (4) Winter snow pack is an important variable to agricultural production as it serves to protect crops from frost destruction during their dormant months as well as provides a source of ground moisture and irrigation supply from spring snow melt. Higher than average ground-surface temperatures in Iran have resulted in area of snow pack 40% less than the previous five years average (Figure 5). In the northwest region pf the country, which accounts for over 50% ofthe total winter grain production, current snow pack is at the lowest recorded levels from 2003 to present.
- (5) MODIS NDVI analysis comparing current vegetation to a five year NDVI average shows above normal vegetation abundance across the northwest region of Iran with generally below average abundance in the central and eastern regions (Figure 6). This trend follows that of precipitation, which provided favorable growing conditions the northwest during October and early November, however high resolution imagery analysis indicates that at least some of the above average vegetation abundance recorded may be a result of still tobe harvested summer crops(Figure 7).

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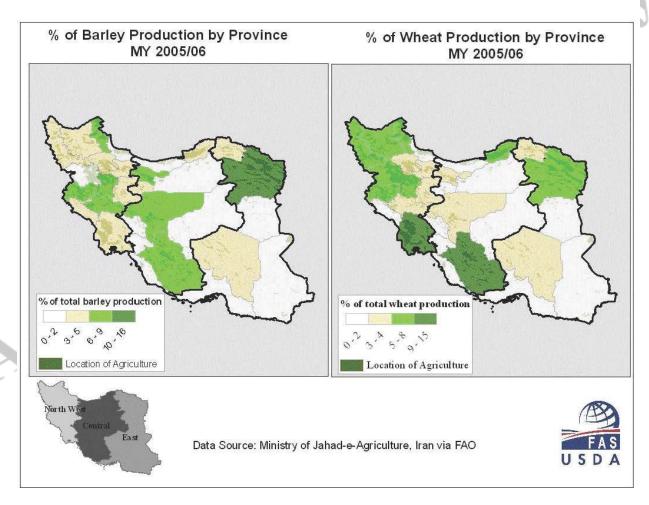


Figure 1. Breakdown by province, percent of total wheat and barley production in Iran.

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% Normal Cumulative Precipitation (mm)

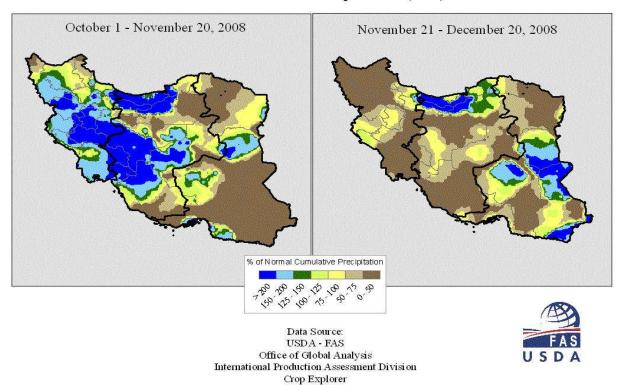


Figure 2. % of Normals precipitation over the current planting season October 1 – December 21, 2008. Current crops planted are for MY2009/10.

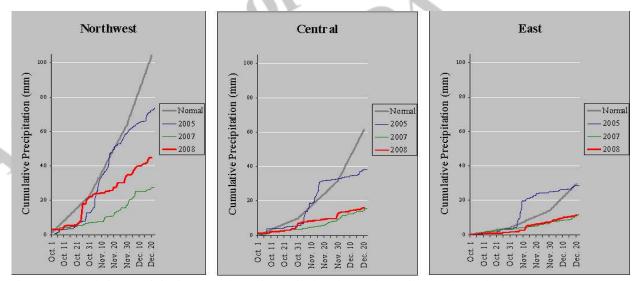


Figure 3. Cumulative precipitation over the major agricultural areas by region. Each graph shows current year precipitation, 2007drought year precipitation, and 2005 precipitation representing the last benchmark year of good agricultural production.

Precipitation Forecast: Dec. 22 - December 29, 2008

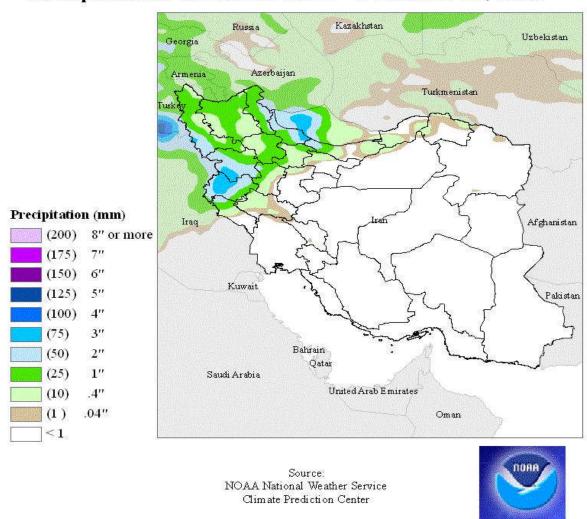
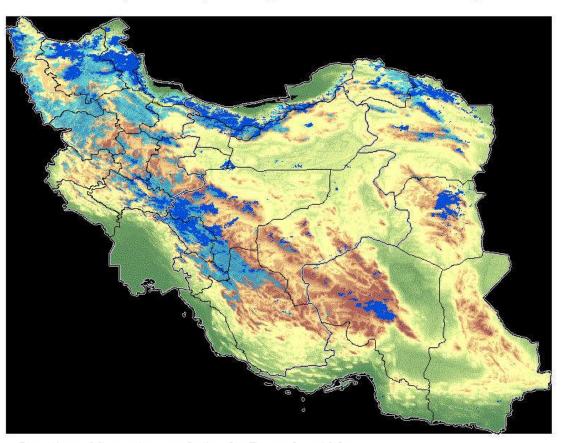
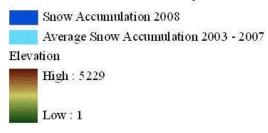


Figure 4. NOAA7daycumulative precipitation forecast.

Annual Snow Accumulation Locations: current year compared against 2003-2007 average



Location of Snow Accumulation by December 19th



Data Source: NASA National Snow and Ice Data Center



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Figure 5. Snow accumulation as of December 19th, 2008. Current snow accumulated area compared to average area of snow accumulation 20032007.

MODIS NDVI 16-day anomoly - Departure from 5 year average

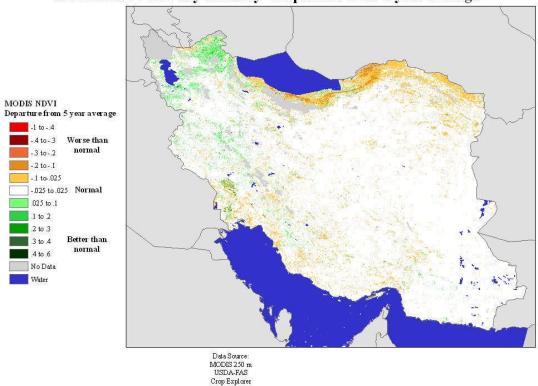


Figure 6. MODIS NDVI comparison of vegetation abundance in the current year to5 year normals.

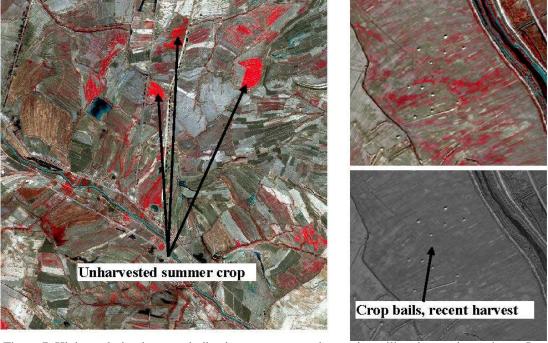


Figure 7. High resolution imagery indicating summer crop harvesting still underway in northwest Iran.